

WHAT IS CLAIMED IS:

1. A computer resource allocating method for allocating servers to each user in a computer system having a plurality of servers interconnected by a local network, connected
5 externally to the Internet, connected to a storage and a storage network, and processing a request of a plurality of users, comprising:

configuring, for each user, a VLAN related to connection to servers allocated to the user and connection between the
10 servers;

monitoring a load of each of the servers; and

when making an allocation change of said servers of said user according to the monitoring result of said load, making a dynamic change of the VLAN of the user who changes allocation so that a computer allocated to each user is always included
15 into the VLAN of the user.

2. The computer resource allocating method according to claim 1, wherein a VPN connecting the exit of a user and the entry of said computer system via a carrier on said Internet
20 is configured for each user, and said VLAN configured for each user selects a packet transmitting the VLAN by VLAN tagging.

3. The computer resource allocating method according to claim 1, further comprising:

configuring a VPN connecting the exit of a user and the
25 entry of said computer system via a carrier on said Internet

to each user;

monitoring at least a network load of the VPN configured for each user at the entry of said computer system; and

making a change of the VPN configuration so as to change a network bandwidth according to the monitoring result of said load.

4. The computer resource allocating method according to claim 3, further comprising:

configuring zoning for each user by said storage network; making an allocation of a storage access bandwidth resource to each user; and

dynamically changing the storage network bandwidth and LUN access priority according to a load of the storage network of each user.

5. The computer resource allocating method according to claim 4, wherein when a load to the network and server with respect to the resource divided to a user is increased, a change is made in the order of the resource allocation of the storage network part, the VLAN part configuration and the VPN part configuration.

6. The computer resource allocating method according to claim 4, wherein when a load to the network and server with respect to the resource divided to a user is decreased, a change is made in the order of the VPN part configuration, the VLAN part configuration, and the resource allocation of the storage network part.

7. The computer resource allocating method according to claim 1, wherein when making a server allocation change to a user in the case of increasing a load of the server with respect to the resource divided to the user, a server allocating process to the user is performed, and thereafter, a VLAN part changing process is performed stepwise in the order of the switch on the storage side and the switch of the entry of the servers.

8. The computer resource allocating method according to claim 3, wherein a network load of each user is monitored in at least one of positions of the user exit, the carrier and the entry of the servers, the monitoring result is judged by a managing server in said computer system, and the managing server in said computer system issues a dynamic change instruction to a network bandwidth of each of the positions.

9. The computer resource allocating method according to claim 3, wherein when said carrier and said computer system are managed in the same managing server, a network load of each user is monitored at the user exit and the carrier entry, and a network bandwidth in each measuring position is changed dynamically.

10. The computer resource allocating method according to claim 3, wherein when making a network bandwidth additional allocation change to a certain user in the case of increasing a network load of the Internet with respect to the user, a change of the VPN part configuration is made in the order of the entry of said computer system, the carrier and the user.

11. The computer resource allocating method according to claim 3, wherein when making a network bandwidth reduction change to a certain user in the case of increasing a network load of the Internet with respect to the user, a change of the VPN part configuration is made in the order of the user, the carrier and the entry of said computer system.

12. The computer resource allocating method according to claim 4, wherein when said storage network load is increased, a change of the storage network configuration is made in the order of the LUN access priority and the storage network bandwidth.

13. The computer resource allocating method according to claim 4, wherein when said storage network load is decreased, a change of the storage network configuration is made stepwise in the order of the storage network bandwidth and the LUN access priority.

14. A computer resource allocating method used in a computer system having a plurality of computers interconnected by a local network, connected externally to the Internet, and connected to a storage and a storage network in which at least one of said plurality of computers is configured for division and allocation of each computer resource so as to form a plurality of logic partitions operated by independent OSs, comprising:

independently configuring a VPN for each user on said Internet to allocate a network bandwidth to each user;

independently making an allocation of a logic partition

to each user in the computer forming said plurality of logic partitions;

configuring a VLAN for each user with respect to connection to a logic partition allocated to each user and connection of the logic partitions allocated to each user; and

making a selection, in each VLAN, of a packet transmitting the VLAN by VLAN tagging.

15. The computer resource allocating method according to claim 14, wherein said storage network configures zoning for each user corresponding to the logic partition of the computer so as to hold security of the user from the computer to the storage resource.

16. A charging method for charging to each user in a system having a plurality of servers interconnected by a local network, connected externally to the Internet, connected to a storage and a storage network, and processing a request of a plurality of users, comprising:

configuring, for each user, a VLAN related to connection to servers allocated to the user and connection between the servers; and

changing server allocation of each user at any time according to comparison of a service level previously configured for each user with the operating state of the servers allocated to the user and charging according to the allocating record of the servers.

17. The charging method according to claim 16, further comprising changing at any time the storage network bandwidth allocation of each user or the access priority of the storage according to comparison of the service level configured for each user with the operating state of the storage network, wherein a charge is calculated based on the operating record of the storage network.

18. The charging method according to claim 16, further comprising changing at any time the network bandwidth allocation of each user according to comparison of a service level configured for each user with the operating state of the network, wherein a charge is calculated based on the operating record of the network.

19. The charging method according to claim 16, wherein upon a charge based on the operating record of the server of each user, when there is an agreement to hold security for each user by a VPN, VLAN and zoning as an option, an additional fee is charged to a server use fee.

20. The charging method according to claim 18, wherein when there is an agreement to guarantee the network bandwidth used by each user as an option, an additional fee is charged to a network bandwidth use fee.